

Application No. 09/964,221
SD-6750

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REMARKS

Claim Status:

Claims **2-22** and **42-47** are pending.

Claims **2-22** and **42-47** are rejected.

Claims **1** and **23-41** are cancelled.

Claim Objections

Claim **42** was objected to because of the following informality: "e) if **D** <", perhaps "h)" was intended. The examiner is correct. Accordingly, claim **42** is currently amended to replace "e)" with "h)", as suggested by the examiner.

The objection has been overcome.

Claim Rejections

Rejections under 35 USC §112, Second Paragraph

Claims **2-3, 5, 9, 17, 20, 22** and **43-45** were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In claims **2-3, 5, 9, 17, 20** and **22** there is insufficient antecedent basis for the limitation "*the method of claim 42*".

Applicants respectfully **traverse**. Claim **42** is a proper claim. Hence, there **does appear to be** a sufficient antecedent basis using for the limitation "*the method of claim 42*" in dependent claims **2-3, 5, 9, 17, 20** and **22**.

Perhaps the applicants do not understand the basis for the examiner's rejection.

Accordingly, the rejection of claim **42** has been overcome.

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The office also stated that the limitations " $Y_j(\text{reference})$ " and " $U_j(\text{reference})$ " in claims 43-45 have insufficient antecedent basis. Claims 43-45 depend from claim 42.

In claim 42, the limitation " $Y_j(\text{reference})$ " is properly defined in the 2nd to 4th lines of claim 42 as follows:

"where Y_{ref} is an n -dimensional row vector $\{Y_1(ref), Y_2(ref), \dots, Y_n(ref)\}$ of unencrypted reference measurements".

Also, in claim 42, the limitation " $U_j(\text{reference})$ " is properly defined in the 5th to 6th lines of claim 42 as follows:

"where U_{ref} is an n -dimensional row vector $\{U_1(ref), U_2(ref), \dots, U_n(ref)\}$ of encrypted reference measurements".

Perhaps the examiner is objecting to use of the full word "reference" in claims 43-45, wherein the shortened version of the word is used in claim 42, i.e., "ref". In fact, they refer to the same thing.

Nevertheless, in an effort to gain allowance of claims 43-45, applicants have **currently amended** claims 43-45 by replacing the limitation " $Y_j(\text{reference})$ " with " $Y_j(ref)$ "; and by replacing the limitation " $U_j(\text{reference})$ " with " $U_j(ref)$ ". This, then, provides an **exact correspondence** with the terms used in independent claim 42; thereby providing a proper antecedent basis for their subsequent use in claims 43-45.

Accordingly, the rejection of claims 43-45 has been overcome.

Rejections under 35 USC §101

Claims 2-22 and 42-47 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, claim 42 does not produce a tangible result (deciding), and the result of the comparison is not stored, displayed, transmitted, or output. Furthermore, claims 42-47 recite a mathematical algorithm and therefore are non-statutory.

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In response, applicants have amended independent claim **42** to recite the additional step:

i) providing the result of the decision made in step h) to an authenticator or inspector, thereby allowing the authenticator or inspector to decide if the item is authentic;

Also, step h) recites "**deciding** that the item is authentic", which is a **tangible and useful result**.

Hence, claim **42** now recites a "**useful process**" that provides information to an authenticator or inspector that allows that person to decide if the item is authentic (or not), based upon making a very simple comparison of two numbers, namely: " $\text{is } D < D_{crit} ?$ ".

Accordingly, the subject matter of claim **42**, and its dependent claims **2-22** and **43-47**, meets the requirements of 35 USC 101; and the rejection has been overcome.

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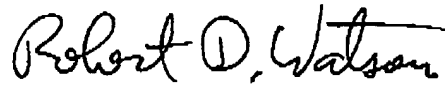
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CONCLUSION

Applicants have responded to each and every objection and rejection, and urge that claims claims **2-22** and **42-47** as presented and amended are now in condition for allowance. Applicants request expeditious processing to issuance.

The Office is authorized to charge **Deposit Account # 19-0131** for any necessary fees regarding this response, including any fees necessary for extensions of time to reply.

Respectfully submitted,



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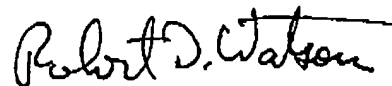
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